Type II and Type III fairy ring in late spring/early summer...
Cultural Practices to Suppress Fairy Ring Symptoms

Type I

- Cultivate and/or use wetting agents to re-wet soil profile

Type II

- Mask ring symptoms with nitrogen or iron

Type III

- Remove mushrooms
Chemical Control

- Fungicide plus wetting agent is the standard for control

- Fungicides most often used curatively
  - Flutolanil (Prostar) plus a wetting agent is most often prescribed
  - Qols (i.e. Heritage, Insignia) are also effective

- Key w/all applications is to water them in with an $\frac{1}{8}$ - $\frac{1}{4}$ inch of water.
Prevention

• Common control practice for soil borne turf pathogens
  – Take–all patch: Apply fungicide in spring when average soil temps reach 55°F
  – Summer patch: Apply fungicide in spring when average soil temps reach 65°F
  – Spring dead spot: Apply fungicide in the fall when soil temps are between 60-80°F

• Superintendents in Gulf Coast states have been using triadimefon for preventive fairy ring control.

• Bayleton granted a 2(ee) label for fairy ring control in 16 states in Feb. 2006.
Prevention of fairy ring caused by *Vasccellum pratense* in ‘Penncross’ creeping bentgrass (July 11, 2006)

- 2 applications made in late March and late April
Objectives

• Investigate fairy ring control from one preventive application of Bayleton in spring.

• Compare control efficacy between low and high rates.

• Determine impact of application timing on preventive control.
## Treatments

<table>
<thead>
<tr>
<th>Fungicide</th>
<th>Application Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayleton: 1 oz/1,000 ft²</td>
<td>A: 50°F (10°C)</td>
</tr>
<tr>
<td>Bayleton: 2 oz/1,000 ft²</td>
<td>B: 55°F (13°C)</td>
</tr>
<tr>
<td></td>
<td>C: 60°F (16°C)</td>
</tr>
<tr>
<td></td>
<td>D: 65°F (18°C)</td>
</tr>
<tr>
<td></td>
<td>E: 70°F (21°C)</td>
</tr>
<tr>
<td></td>
<td>F: 75°F (24°C)</td>
</tr>
</tbody>
</table>
Average 5 day soil temperature taken at 2 inches (°F)

March
- Application A: 50°F (10°C) on March 14th
- Application B: 55°F (13°C) on March 25th
- Application C: 60°F (16°C) on March 28th

April
- Application D: 65°F (18°C) on March 30th

May
- Application E: 70°F (21°C) on May 2nd
- Application F: 75°F (24°C) on May 30th

June

July

May 29th: Fairy ring start
Bayleton – Low rate: 65°F

6/22/07

Control
7/24/07

Bayleton – Low rate: 65°F
Control Recommendation

• Make two monthly applications of triadimefon at the low label rate.

• Initiate applications when 5 day average soil temperatures reach 55 - 65°F corresponding to late March in Raleigh, NC.

• Water in the application immediately with ¼ inch of irrigation.

• Make wetting agent application on regular scheduling, but not tank-mixed when making PREVENTIVE applications.
Refinement – Part 1

- How do the newer DMIs perform in the preventive application scheme? Heritage? Endorse?

- How well does it work on bermuda?
Prevention of fairy ring on a bermudagrass green in Wilmington, NC (June 20, 2008).

- 2 applications made in late March and late April
- No wetting agent tank-mixed with applications.
Prevention of fairy ring on a bentgrass green in Charlotte, NC  (August 8, 2008).

- 2 applications made in late March and late April
- No wetting agent tank-mixed with applications.
• Does tank-mixing a wetting agent really hurt the performance of a preventively applied fairy ring fungicide? Will it reduce phytotoxicity?

• Can I wait to water the application in until night?
Treatments

1) Fungicide
   - Bayleton: 1 oz/1,000 ft²
   - Triton: 0.25 oz/1,000 ft²
   - Untreated

2) Irrigation
   - Watered in immediately
   - Watered in 10 hours later

3) Wetting Agent
   - Tank-mixed with Revolution (6 oz/M)
   - No Wetting Agent
Prevention of fairy ring caused by *Vascellum pratense* in ‘A-1’ creeping bentgrass (August 4, 2008)

- 2 applications made in late March and late April
Conclusions

- DMI fungicides appear to have similar efficacy as preventive treatments.
- In an early test, irrigation timing did not appear to have an impact on fungicide efficacy.
- Tank mixing preventive fungicides with a wetting agent decreases fungicide efficacy.
- Phytotoxicity of DMI applications needs further evaluation. In particular, impact on ultradwarf bermudagrass varieties needs to be assessed.
Acknowledgements

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